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limited regions in England in the course of fifteen months. In seeking for the source of the small thread-worm, or *Oxyuris vermicularis*, which infests man, I have also been led to discover some new species, of which I propose in due time to publish descriptions with drawings. As is commonly the case in organic nature, we find the specific form changing with the change in condition, but the species are often found to differ where difference in the conditions are hardly appreciable.

Mr. Bastian, in a note to his description of the Vinegar-eel, *Anguillula aceti*, says he was indebted to Dr. Davaine for the opportunity of examining the animals, and adds that "they are much less frequent than is generally imagined, at all events in England; and this may be due in great measure to the adulteration of our vinegar with sulphuric acid." It would thus appear that the *Anguillula aceti* he examined was contained in a specimen of what may be suspected to have been the wine vinegar of France. The cider vinegar so commonly used in this country usually teems with Vinegar-eels. Our cruets, when held up to the light, even to the sharp sight of a naked eye frequently exhibit the worms swarming, especially at the border of the surface, as if in search of both air and light. By comparison of our cider Vinegar-eel with Mr. Bastian's description and drawings of the true *Anguillula aceti*, which I infer to be the wine Vinegar-eel, it appears to belong to a different species. From the descriptions of previous authors of the European Vinegar-eel, I had considered ours as the same. I shall not now give a description of the animal, proposing to do so in future, together with other species. I may say, however, while it has nearly the size and form of the *Anguillula aceti*, it has the œsophagus of the form in the genus *Cephalobus* of Bastian.

June 21st.

WM. S. VAUX, Vice-President, in the Chair.

Twenty members present.

PROF. LEIDY remarked that the two fossils presented this evening by Dr. W. F. McAllister, of Burlington, Kansas, were obtained in that vicinity from gravel, at a depth of thirty feet, in digging a well. One of the specimens consists of a plate from a large molar of the American Elephant, *Elephas Americanus*. The other is the fore part of a ramus of a lower jaw of an Ox, perhaps of a large individual of the *Bison Americanus*. In comparison with the corresponding part of the jaw of the existing animal, the measurements are as follow:

	Fossil.	Recent jaw.
Depth at fore part of first molar.....	24 lines.	21 lines.
Depth at incisive foramen.....	26 "	24 "
Depth at lowest part of hiatus.....	21 "	18 "
Length of hiatus in advance of molar.....	52 "	52 "
Thickness below first molar.....	14 "	11 "

PROF. LEIDY further stated that he had recently received for examination a small collection of fossils, through the New York Lyceum of Natural History and the aid of his friend Mr. George N. Lawrence, which belonged to Mr. Wm. Newcomb, of New York. The collection is said to have been brought from the Rocky Mountains, but the exact locality has not yet been ascertained. Most of the fossils consist of fresh-water shells, evidently of tertiary age, but adherent matrix indicates them to have been derived from several different strata. Accompanying them there are a few bones, of which one is the coracary bone, apparently of *Equus excelsus*; the others mostly pertain to two fishes, a large cyprinoid and a ray. As the living cyprinoids are fresh-water fishes, the association of the remains of a ray may perhaps indicate that this was also a fresh-water species, though it is not unlikely that it may belong to

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a marine formation. The two fishes, apparently extinct species and genera, not previously noticed, are indicated by the remains briefly described as follows:

ONCOBATIS PENTAGONUS (*Ογκος*, a boss or tumor; *βατις*, a ray).—Founded on a dermal boss, with a pentagonal outline, the sides of which are convex. Under surface strongly convex. Upper surface with five planes sloping from a central summit and defined by as many prominent borders. From the summit an oval enameloid areola occupies rather less than half the extent of the upper surface. The areola is shining, nearly smooth, and exhibits concentric lines of structure. The very summit of the boss appears composed of a harder, more translucent substance protruding through the opaque white areola. Greater diameter of the boss, 16 lines; shorter diameter, 15 lines; thickness from summit, 8 lines; greater width of areola, 8 lines; shorter width, 6 lines.

MYLOCYPRINUS ROBUSTUS—Founded on specimens of pharyngeal bones with teeth. There are eight of them of different sizes, all imperfect. The largest have been double the size of the smallest, and perhaps they may have pertained to several species. They are robust, and indicate a large and powerful fish. They have the general form of the posterior pharyngeals in the carp and other cyprinoids. The posterior ramus is prolonged above in a stout pedicle, with an inner triangular articular surface for attachment to the cranium. Its posterior surface, below the pedicle, is broad, nearly flat, with the outer border convex and acute, the inner border concave and sustaining a single row of teeth.

The anterior ramus is thick, and abruptly narrows forward, but is broken at its fore part in all the specimens. At the angle of conjunction of the rami the bone is massive, thicker fore and aft than transversely. The outer border of the bone forms two flexures. The antero-external surface is broad, vertically concave, transversely convex, in some cases entire, in others excavated into pits communicating with the bottoms of the teeth or extending through the bone where the latter have been shed.

The teeth form a single vertical row of four, and are supported on the inner side of the conjunction of the two rami of the pharyngeal bone, projecting a short distance below the level of the inferior ramus, and extending rather more than half-way up the superior ramus. They have stout bony bases, and are of the true masticatory type. They bear a striking resemblance to human premolar teeth—the largest in size as well as form. They are all of the same character, or present no variety. They successively increase in size from below upward. The crown of the teeth is transversely oval, with a broad tritürating surface depressed at the centre. The enameloid structure is everywhere smooth.

In all the specimens the uppermost tooth has been shed and not replaced, its position being indicated by a large quadrate pit of the pharyngeal, in some specimens extending through the bone. In most of the specimens the teeth are but little or scarcely worn. In one specimen they are half worn away, very obliquely from within, outward and forward. Measurements from several specimens are as follow:

	Lines.	Lin.	Lin.	Lin.	Lin.	Lin.
Length of posterior ramus to level of middle of second tooth.....	22					
Width on level of third tooth.....	8½	8	7½		6	5½
Thickness on level of second tooth.....	11	9	9		7½	6½
Length of series of four teeth.....		13	12			8
Transverse diam. of first tooth.....		2½	2			
“ “ second tooth.....		4	4			2½
Vertical diam. “ “ “.....		2¾	2¼			1¾
Transverse diam. of third “.....		4½	4½	4¼	3½	
Vertical “ “ “.....		3½	3	3¼	3	

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No. 1 appears to be from an old individual; the teeth have all been shed or broken away. No. 2 is the most robust specimen. The uppermost tooth has been shed and not replaced. The bone is not excavated in pits beneath the position of the contained teeth. No. 3 has the upper tooth shed and the bone perforated in its position. The lower three teeth are retained, but half worn away. In No. 4 the bone is perforated in the position of the upper shed tooth. In Nos. 5 and 6 the bone is perforated in the position of the upper shed tooth, and deep pits exist beneath the position of the two teeth below.

Since communicating the above, Prof. Hayden presented a specimen of a pharyngeal bone of the same fish from Castle Creek, Idaho.

June 28th.

The President, DR. RUSCHENBERGER, in the Chair.

Thirteen members present.

July 5th, 1870.

The President, DR. RUSCHENBERGER, in the Chair.

Fifteen members present.

The following papers were presented for publication :

“Remarks on Huxley’s Classification of Birds.” By T. Hale Streets.

“On the Stipules of *Magnolia* and *Liriodendron*.” By Thomas Meehan.

The resignation of Mr. Gilbert Coombs as a member was read and accepted.

MR. MEEHAN exhibited some specimens of *Rumex oblongifolius*, a naturalized Dock from Europe. He said that so far as he could ascertain from European specimens, and the descriptions of Babington, Bromfield and other English botanists, the plant was there hermaphrodite; but here, as correctly stated by Dr. Asa Gray, it was monœciously polygamous. He thought the fact that plants hermaphrodite in one country becoming unisexual in another, was worthy of more attention by those engaged in the study of the laws of sex than had been given to it. This *Rumex* did not stand alone; *R. crispus* and *R. patientia* exhibited the same thing. *Fragaria* was another instance well known to horticulturists, although the fact scientifically had not received due weight. The average tendency of the strawberry in Europe was to hermaphroditism,—here to produce pistillate forms.

He also called attention to the fact that in these American specimens unisexuality was in proportion to axial vigor. This law he had already explained in times past to the Academy, and new instances were scarcely necessary. Here, however, the moderately weak plant had more hermaphrodite flowers than the strong one; and in both classes of specimens the number of male flowers gradually increased with the weakening of the axis, until the ends of the raceme were almost wholly of male flowers. The first flowers on the strong verticels were usually wholly pistillate.

PROF. COPE inquired whether the facts now noted by Mr. Meehan did not conflict with those he had before brought to the notice of the Academy in coniferous plants? He understood that in them the female flowers were at the apex of the young shoots and the male flowers in lower and more exterior positions.

MR. MEEHAN replied that the facts were identical in both instances in this, 1870.]